

Human Cardiac Troponin I, cTnI ELISA Kit | cTnI elisa kit

Human Cardiac Troponin I, cTnI

CATALOG #
AAA59123

REACTIVITY
Human

PRODUCT SYNONYMS

Cardiac Troponin I; cTnI; Human Cardiac Troponin I; cTnI elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Sequence Length	189
Samples	Serum, cell culture supernatants or tissue homogenate
Assay Type	Quantitative Sandwich
Detection Range	312 pg/ml - 20,000 pg/ml
Sensitivity	10 pg/ml
Preparation and Storage	Store at 4 degree C for 6 months, or at -20 degree C for one year. Store HRP conjugated antibody at 4 degree C for one year.

IMAGES

Typical Data & Standard Curve

Results of a typical standard run of a human cTnI ELISA kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	pg/ml	0	312	625	1250	2500	5000	10,000	20,000
Y	OD450	0.053	0.108	0.146	0.174	0.266	0.546	1.336	2.722

Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for cTnI elisa kit

Principle of the Assay: This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-cTnI monoclonal antibody was pre-coated onto 96-well plates. The standards and test samples were added to the wells and any cTnI present is bound by the immobilized antibody. After washing away any unbound substances, the HRP conjugated anti-cTnI monoclonal antibody was added to wells as detection antibodies. Following a wash to remove any unbound antibody-enzyme reagent, the TMB substrates were added to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding stop solution. The density of yellow is proportional to the cTnI amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of cTnI can be calculated.

Background: Troponin I is one of 3 subunits that form the troponin complex of the thin filaments of striated muscle, the others are troponin T and troponin C. Human troponin I is presented in cardiac muscle tissue by a single isoform with molecular weight 23876 Da and it consists of 209 amino acid residues. It binds actin and inhibits actomyosin ATPase activity in the absence of calcium. In 2000, Labarrere et al. found that persistent elevation of cardiac troponin I levels after heart transplantation were associated with high risk for developing coronary artery disease and graft failure after cardiac transplantation. The cardiac troponin I may be a useful tool in identifying patients with heart failure who are at increased risk for progressive ventricular dysfunction and death.

NCBI AND UNIPROT INFORMATION

NCBI GI #

297206842

NCBI GeneID	100462680
NCBI GenBank Nucleotide #	NM_001185028.1
NCBI Official Full Name	cardiac troponin I
NCBI Official Symbol	LOC100462680
NCBI Protein Information	cardiac troponin I

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/human-elisa-kits/cardiac-troponin-i-ctni/59123>